

**REMARKS/DISCUSSION OF ISSUES**

Upon entry of the present amendment, claims 1-40 are pending in the captioned application. Claims 1-13 and 24-35 were the subject previously of restriction requirements. These claims have been cancelled without disclaimer of their subject matter or rights thereunder. Claims 14-23 have been substantively examined and are the subject of the present reply under Rule 111. Claims 36-40 are new.

**Drawings**

Applicants gratefully acknowledge the approval of proposed corrections to Fig. 1B. These corrections have been incorporated into a formal drawings enclosed herewith. In the interest of completeness, a full set of formal drawings are provided herewith. Approval of these drawings is respectfully requested.

**Rejections**

**1. Rejections under 35 U.S.C. § 102(b)**

Claims 14-20 and 23 were rejected under 35 U.S.C. § 102(b) in view of *Adams, et al.* (U.S. Patent 6, 181,852) For at least the reasons set forth below, it is respectfully submitted that claim 14 and the claims that depend therefrom are patentable over the applied art.

Claims 14 and 22 were rejected under 35 U.S.C. § 102(b) in view of *Rogers, Jr., et al.* (U.S. Patent 5,135,554).

A proper rejection for anticipation "...requires, as the first step in the inquiry, that **all the elements** of the claimed invention be described in a **single reference.**" *In re Spada* 15 USPQ 2d 1655, 1657 (1990) (emphasis added). A necessary corollary to this test of anticipation is that the "absence of any claimed element negates anticipation." *Kloster-Speedsteel AB v. Crucible, Inc.* 230 USPQ 81, 84 (1986).

**a.) Independent Claim 14**

Claim 14 features an optical element. The optical element comprises at least one layer having a substantially **radially uniform** thickness disposed about the optical element.

The reference to *Adams, et al.* is drawn to a tunable chromatic dispersion compensator (CDC) for optical communication systems. The CDC of *Adams, et al.* includes a variable coating comprising a tapered strain relief that may be applied to a grating device (such as a Bragg grating or long-period grating) to attain a tunable chirp. To wit, a fiber 11 has a grating region 12 and a tapered coating 14 deposited on the outer surface of the fiber in the grating region.

The reference to *Adams, et al.* also discloses that an apodized fiber Bragg grating (FBG) is written in the core and the outer polymer layer of the fiber is stripped from the section of the fiber containing the FBG. Next Ti and Au are evaporated onto the fiber while the fiber is rotating to form a uniform coating of metal on the outer

surface of the stripped region. (Kindly refer to the Abstract; column 3, line 11-column 4, line 4; and column 6, lines 38-48 of the reference to *Adams, et al.* for support for the above assertions.)

However, *Adams, et al.* lacks the disclosure of at least one layer having a substantially **radially uniform thickness** disposed about the optical element as the Office Action states. To this end, the Office Action is attempting to equate the uniform coating of metal on an FBG with the featured at least one layer of radially uniform thickness disposed about the optical element as featured in claim 1. This is improper. To this end, *Adams, et al.* does not qualify how the coating of Ti or Au is uniform; and especially does not disclose that the coating has a radially uniform thickness about the optical element as featured in claim 14.

Accordingly, and for at least the reasons set forth above, it is respectfully submitted that the reference to *Adams, et al.* lacks the disclosure of at least one of the features of independent claim 14. Therefore the rejection under 35 U.S.C. § 102(b) based on the reference to *Adams, et al.* is improper and should be withdrawn.

Claim 14 also features that *the optical element further comprises a grating.*

Contrastingly, the reference to *Rogers, Jr., et al.* is drawn to a method and apparatus for forming sputter-coated glass fibers. To this end, the reference to *Rogers, Jr., et al.* discloses a method and apparatus for continuously sputter coating fibers immediately after they are produced and prior to contamination of the fiber. (Kindly refer to

the Abstract; column 3, lines 25-34; and to column 6, lines 15-21 of the reference to *Rogers, Jr., et al.* for support for the above assertions.)

However, the reference to *Rogers, Jr., et al.* specifically lacks the disclosure of at least of **an optical element comprising a grating** as specifically recited in claim 14. Therefore, because the reference to *Rogers, Jr., et al.* lacks at least one of the features of claim 14, it cannot serve to establish a proper *prima facie* case of anticipation. Accordingly, the rejection under 35 U.S.C. § 102(b) based on the reference to *Rogers, Jr., et al.*.

**b.) Claims 15-23**

Claims 15-23 depend from claim 14, which for at least the reasons set forth above is patentable over the applied art. Therefore, claims 15-23 are patentable at least because of their dependence on claim 14.

**2. Rejection under 35 U.S.C. § 103(a)**

Claim 21 were rejected under 35 U.S.C. § 103(a) as being obvious in view of *Rogers, Jr., et al.*

A proper rejection under 35 U.S.C. § 103(a) requires that **all** of the claimed elements be found in the applied art. If a **single** claimed element is not found in the applied art, a *prima facie* case of obviousness cannot be properly established.

Claim 21 depends from claim 14. Accordingly, and while in no way conceding as to the propriety of the rejection under 35 U.S.C. § 103(a), at least because claim 14 is allowable over the applied art for the reasons set

forth above, claim 21 is also allowable by virtue of its dependence on claim 14.

**Claims 36-40**

Claims 36-40 are new. These claims also depend from claim 14, and are thus patentable over the applied art at least because of this dependency.

**Conclusion**

In view of the foregoing, applicant respectfully requests withdrawal of the above noted rejection of record, the allowance of all pending claims, and the holding of this application in condition for allowance. If any points remain of issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Except as otherwise stated in the above noted Remarks, Applicant notes that each of the amendments have been made to place the claims in better form for U.S. practice, not to distinguish the claims from prior art references, otherwise narrow the scope of previously pending claims or comply with other statutory requirements.

**Petition is hereby made for a one-month extension of time under 37 C.F.R. §1.136. Permission is hereby given to charge a one-month extension of time as specified under 37 C.F.R. §1.17 to Deposit Account Number 50-0238.**

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or

credit any overpayment to Deposit Account Number 50-0238 for any required fees including, but not limited to, any fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact William S. Francos, Esq. (Reg. No. 38,456) at (610) 375-3513 to discuss these matters.

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